

Attorney Docket No.:       DEX0491US.NP  
Inventors:               Papkoff et al.  
Serial No.:               10/562,259  
Filing Date:              December 21, 2005  
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This listing of the claims will replace all prior versions and listings of claims in the application:

**Listing of the claims:**

Claim 1 (canceled)

Claim 2 (currently amended): The antibody of ~~claim 1~~ claim 6 which internalizes upon binding to Pro104 on a mammalian cell in vivo.

Claim 3 (previously presented): The antibody of ~~claim 1~~ claim 6 which is a monoclonal antibody, an antibody fragment or a chimeric or humanized antibody.

Claims 4-5 (canceled)

Claim 6 (currently amended): ~~The antibody of claim 1~~ An isolated Pro104 antibody that binds to Pro104 on a mammalian cell in vivo which is produced by a hybridoma selected from the group consisting of American Type Culture Collection accession number PTA-5277, 6076, 6077 and 6078 or competes for binding to the same epitope as the epitope bound by a monoclonal antibody produced by a hybridoma selected from the group consisting of ATCC accession number PTA-5277, 6076, 6077 and 6078.

Claim 7 (canceled)

Claim 8 (currently amended): The antibody of ~~claim 1~~ claim 6 which is conjugated to a growth inhibitory agent or a cytotoxic agent.

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Claim 9 (canceled)

Claim 10 (previously presented): The antibody of claim 8 wherein the cytotoxic agent is selected from the group consisting of toxins, antibiotics, radioactive isotopes and nucleolytic enzymes.

Claims 11-18 (canceled)

Claim 19 (currently amended): ~~The antibody of claim 16 which is a humanized form of~~ An anti-Pro104 antibody that inhibits the growth of Pro104-expressing cancer cells in vivo, said antibody being an anti-Pro104 antibody produced by a hybridoma selected from the group consisting of ATCC accession number PTA-5277, 6076, 6077 and 6078 or competes for binding to the same epitope as the epitope bound by a monoclonal antibody produced by a hybridoma selected from the group consisting of ATCC accession number PTA-5277, 6076, 6077 and 6078.

Claim 20 (currently amended): The antibody of ~~claim 16~~ claim 19, wherein the cancer cells are from a cancer selected from the group consisting of breast, ovarian, pancreatic and lung cancer.

Claims 21 (canceled)

Claim 22 (currently amended): A cell that produces the antibody of ~~claim 1~~ claim 6.

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Claim 23 (original): The cell of claim 22, wherein the cell is selected from the group consisting of hybridoma cells deposited under American Type Culture Collection accession number PTA-5277, 6076, 6077 and 6078.

Claims 24-29 (canceled)

Claim 30 (currently amended): A method of killing a Pro104-expressing cancer cell, comprising contacting the cancer cell with the antibody of ~~claim 1~~ claim 6, thereby killing the cancer cell.

Claim 31 (withdrawn): The method of claim 30, wherein the cancer cell is selected from the group consisting of breast, ovarian, pancreatic and lung cancer cell.

Claims 32-34 (canceled)

Claim 35 (withdrawn): The method of claim 30, wherein the antibody is an antibody fragment or a humanized antibody.

Claim 36 (canceled)

Claim 37 (withdrawn): The method of claim 30, wherein the antibody is conjugated to a cytotoxic agent.

Claim 38 (canceled)

Claim 39 (withdrawn): The method of claim 30, wherein the antibody is a humanized form of the antibody produced by

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a hybridoma selected from the group consisting of ATCC accession number PTA-5277, 6076, 6077 and 6078.

Claims 40-46 (canceled)

Claim 47 (withdrawn): The method of claim 30, wherein the antibody is administered in conjunction with at least one chemotherapeutic agent.

Claims 48-60 (canceled)

Claim 61 (currently amended): A method for detecting Pro104 overexpression in a subject in need thereof comprising,

a) combining a serum sample of a subject with a Pro104 antibody of ~~claim 1~~ claim 6 under conditions suitable for specific binding of the Pro104 antibody to Pro104 in said serum sample

b) determining the level of Pro104 in the serum sample,

c) comparing the level of Pro104 determined in step b to the level of Pro104 in a control,

wherein an increase in the level of Pro104 in the serum sample from the subject as compared to the control is indicative of Pro104 overexpression in the subject.

Claim 62 (withdrawn): The method of claim 61 wherein the subject has cancer.

Claim 63 (withdrawn): The method of claim 62 wherein the subject has breast, ovarian, pancreatic or lung cancer or a metastatic cancer thereof.

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Claims 64-71 (canceled)

Claim 72 (currently amended): The antibody of ~~Claim 1~~  
claim 6 which is detectably labeled.

Claim 73 (previously presented): The antibody of Claim 72 wherein the label is selected from the group consisting of radiolabels, fluorescent labels, enzymatic labels or gold particles.

Claim 74 (previously presented): An isolated antibody which is produced by a hybridoma selected from the group consisting of American Type Culture Collection accession number PTA-5277, 6076, 6077 and 6078 or competes for binding to the same epitope as the epitope bound by a monoclonal antibody produced by a hybridoma selected from the group consisting of ATCC accession number PTA-5277, 6076, 6077 and 6078.

Claim 75 (previously presented): The antibody of Claim 74 which is a monoclonal antibody, an antibody fragment or a chimeric or humanized antibody.

Claim 76 (previously presented): The antibody of Claim 74 which is conjugated to a growth inhibitory agent or a cytotoxic agent.

Claim 77 (previously presented): The antibody of Claim 76 wherein the cytotoxic agent is selected from the group

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consisting of toxins, antibiotics, radioactive isotopes and nucleolytic enzymes.

Claim 78 (previously presented): The antibody of Claim 74 which is detectably labeled.

Claim 79 (previously presented): The antibody of Claim 78 wherein the label is selected from the group consisting of radiolabels, fluorescent labels, enzymatic labels or gold particles.

Claim 80 (previously presented): A cell that produces the antibody of Claim 74.

Claim 81 (previously presented): The cell of claim 80 wherein the cell is selected from the group consisting of hybridoma cells deposited under American Type Culture Collection accession number PTA-5277, 6076, 6077 and 6078.

Claim 82 (new): A cell that produces the antibody of claim 19.

Claim 83 (new): The cell of claim 82 wherein the cell is selected from the group consisting of hybridoma cells deposited under American Type Culture Collection accession number PTA-5277, 6076, 6077 and 6078.

Claim 84 (new): A method of killing a Pro104-expressing cancer cell, comprising contacting the cancer cell with the antibody of claim 19, thereby killing the cancer cell.

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Claim 85 (new): A method of killing a Pro104-expressing cancer cell, comprising contacting the cancer cell with the antibody of claim 74, thereby killing the cancer cell.

Claim 86 (new): A method for detecting Pro104 overexpression in a subject in need thereof comprising,

a) combining a serum sample of a subject with a Pro104 antibody of claim 19 under conditions suitable for specific binding of the Pro104 antibody to Pro104 in said serum sample

b) determining the level of Pro104 in the serum sample,  
c) comparing the level of Pro104 determined in step b to the level of Pro104 in a control,

wherein an increase in the level of Pro104 in the serum sample from the subject as compared to the control is indicative of Pro104 overexpression in the subject.

Claim 87 (new): A method for detecting Pro104 overexpression in a subject in need thereof comprising,

a) combining a serum sample of a subject with a Pro104 antibody of claim 74 under conditions suitable for specific binding of the Pro104 antibody to Pro104 in said serum sample

b) determining the level of Pro104 in the serum sample,  
c) comparing the level of Pro104 determined in step b to the level of Pro104 in a control,

wherein an increase in the level of Pro104 in the serum sample from the subject as compared to the control is indicative of Pro104 overexpression in the subject.

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Claim 88 (new): The antibody of claim 6 which is a monoclonal antibody, an antibody fragment or a chimeric or humanized antibody.

Claim 89 (new): The antibody of claim 19 which is a monoclonal antibody, an antibody fragment or a chimeric or humanized antibody.

Claim 90 (new): The antibody of claim 19 which is detectably labeled.

Claim 91 (new): The antibody of claim 90 wherein the label is selected from the group consisting of radiolabels, fluorescent labels, enzymatic labels or gold particles.

Claim 92 (new): The antibody of claim 74 which is detectably labeled.

Claim 93 (new): The antibody of Claim 92 wherein the label is selected from the group consisting of radiolabels, fluorescent labels, enzymatic labels or gold particles.

Claim 94 (new): The antibody of claim 6 wherein the antibody is produced by a hybridoma of American Type Culture Collection accession number PTA-5277 or competes for binding to the same epitope as the epitope bound by a monoclonal antibody produced by a hybridoma of ATCC accession number PTA-5277.

Claim 95 (new): The antibody of claim 6 wherein the antibody is produced by a hybridoma selected from the group

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consisting of ATCC accession number PTA-6076, 6077 and 6078 or competes for binding to the same epitope as the epitope bound by a monoclonal antibody produced by a hybridoma selected from the group consisting of ATCC accession number PTA-6076, 6077 and 6078.

Claim 96 (new): The antibody of claim 19 wherein the antibody is produced by a hybridoma of American Type Culture Collection accession number PTA-5277 or competes for binding to the same epitope as the epitope bound by a monoclonal antibody produced by a hybridoma of ATCC accession number PTA-5277.

Claim 97 (new): The antibody of claim 19 wherein the antibody is produced by a hybridoma selected from the group consisting of ATCC accession number PTA-6076, 6077 and 6078 or competes for binding to the same epitope as the epitope bound by a monoclonal antibody produced by a hybridoma selected from the group consisting of ATCC accession number PTA-6076, 6077 and 6078.

Claim 98 (new): The antibody of claim 74 wherein the antibody is produced by a hybridoma of American Type Culture Collection accession number PTA-5277 or competes for binding to the same epitope as the epitope bound by a monoclonal antibody produced by a hybridoma of ATCC accession number PTA-5277.

Claim 99 (new): The antibody of claim 74 wherein the antibody is produced by a hybridoma selected from the group consisting of ATCC accession number PTA-6076, 6077 and 6078

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or competes for binding to the same epitope as the epitope bound by a monoclonal antibody produced by a hybridoma selected from the group consisting of ATCC accession number PTA-6076, 6077 and 6078.

Claim 100 (new): The cell of claim 23, wherein the cell is a hybridoma cell deposited under American Type Culture Collection accession number PTA-5277

Claim 101 (new): The cell of claim 23, wherein the cell is selected from the group consisting of hybridoma cells deposited under American Type Culture Collection accession number PTA-6076, 6077 and 6078.

Claim 102 (new): The cell of claim 81, wherein the cell is a hybridoma cell deposited under American Type Culture Collection accession number PTA-5277

Claim 103 (new): The cell of claim 81, wherein the cell is selected from the group consisting of hybridoma cells deposited under American Type Culture Collection accession number PTA-6076, 6077 and 6078.

Claim 104 (new): The cell of claim 83, wherein the cell is a hybridoma cell deposited under American Type Culture Collection accession number PTA-5277

Claim 105 (new): The cell of claim 83, wherein the cell is selected from the group consisting of hybridoma cells deposited under American Type Culture Collection accession number PTA-6076, 6077 and 6078.

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Claim 106 (new): The method of claim 30, wherein the antibody is administered in conjunction with at least one carrier.

Claim 107 (new): An article of manufacture comprising a container and the antibody of claim 6.

Claim 108 (new): The article of manufacture of claim 107 which further comprises a carrier.

Claim 109 (new): The article of manufacture of claim 107 which further comprises a label or package insert.

Claim 110 (new): An article of manufacture comprising a container and the antibody of claim 19.

Claim 111 (new): The article of manufacture of claim 110 which further comprises a carrier.

Claim 112 (new): The article of manufacture of claim 110 which further comprises a label or package insert.

Claim 113 (new): An article of manufacture comprising a container and the antibody of claim 74.

Claim 114 (new): The article of manufacture of claim 113 which further comprises a carrier.

Claim 115 (new): The article of manufacture of claim 113 which further comprises a label or package insert.